Guidelines For Estimating

Cow-Calf Production Costs

Based on a 150 Head Cow Herd

Date: September, 2005

This guide is designed to provide you with planning information and a format for calculating costs of production of a cow calf enterprise. Adjustments will be necessary when applying these figures to your own enterprise.

The budget estimates are based on a number of assumptions which are clearly defined in the supporting pages. Productivity and performance assumptions are based on data supplied by specialists as well as data collected from certain producers. Input costs are based on recommended practices and/or information obtained from producers. Good management is assumed in that a balanced ration is being fed, livestock are on a herd health program and handling facilities are included.

Disclaimer: This budget is only a guide and is not intended as an in depth study of the cost of production of the Manitoba cattle industry. Interpretation and utilization of this information is the responsibility of the user. If you require assistance with developing your individual budget, please contact your local MAFRI Business Development Specialist or Livestock Farm Production Extension Specialist.

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Cow-Calf Production Costs September, 2005
Based on a 150 Cow Herd

A. Operating Costs	Cost/Cow	Total Cost	Your Cost
1. Feed Costs			
1.01 Grain	$5.00	$750	
1.02 Hay	$161.00	$24,150	
1.03 Salt & Minerals	$20.30	$3,045	
Total Feed Cost	**$186.30**	**$27,945**	
2. Other Operating Costs			
2.01 Straw	$20.00	$3,000	
2.02 Veterinary Medicine & Supplies	$20.67	$3,101	
2.03 Breeding Costs	$33.19	$4,979	
2.04 Fuel, Maintenance & Repairs	$27.00	$4,050	
2.05 Utilities	$10.00	$1,500	
2.06 Marketing & Transportation	$26.49	$3,974	
2.07 Death Loss	$11.25	$1,688	
2.08 Manure Removal	$16.67	$2,501	
2.09 Insurance	$8.81	$1,322	
2.10 Herd Replacement	$62.50	$9,375	
2.11 Miscellaneous	$6.67	$1,001	
Subtotal Operating Costs	$429.55	$64,436	
2.12 Operating Interest	$12.89	$1,933	
Total Operating Costs	**$442.44**	**$66,369**	
B. Fixed Costs			
3. Depreciation			
3.01 Buildings	$12.72	$1,908	
3.02 Machinery & Equipment	$40.00	$6,000	
4. Investment			
4.01 Buildings	$4.45	$668	
4.02 Machinery & Equipment	$10.50	$1,575	
4.03 Livestock	$31.50	$4,725	
4.04 Pasture Land & Fencing	$60.86	$9,129	
Total Fixed Costs	**$160.03**	**$24,005**	
Total Operating and Fixed Costs	**$602.47**	**$90,374**	
C. Labour	$90.00	$13,500	
Total Cost of Production	**$692.47**	**$103,874**	

Breakeven price	$/cwt	
A. Operating Costs	$81.00	
B. Operating & Fixed Costs	$110.29	
C. Operating, Fixed & Labour Costs	$126.77	

Breakeven Price $/cwt = Cost ÷ 95% calf crop ÷ calf weight (5.75cwt)

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Assumptions

1. This budget outlines the cost of production for a cow calf operation with 150 cows, 6 bulls and 95% calf crop weaned.
2. Building and equipment are valued at new cost.
3. All feed is valued at market value.
4. Manure removal is contracted out.
5. Replacement heifers are valued at fair market value.
6. This budget assumes an average weaning weight of 575 lbs. (steer calves 600 lbs and heifer calves 550 lbs.)

Cow-Calf Production Worksheet

A. Operating Costs

1. Feed Costs

1.01 Barley (processed)

	2.00	lbs barley/cow/day	
x	60.00	days/year	
÷	48.00	lbs/bu	
x	$2.00	/bushel	
=	**$5.00**	**/cow**	

1.02 Hay (for cows)

	2.50	tons good quality	
x	$50.00	/ton	
=	$125.00	/cow	
	1.20	tons low quality	
x	$30.00	/ton	
=	$36.00	/cow	
Total =	**$161.00**	**/cow**	

1.03 Salt and Minerals

	35.00	lbs salt/cow/year	
x	$0.10	/lb	
=	$3.50	/cow	
	35.00	lbs mineral/cow/year	
x	$0.48	/lb	
=	$16.80	/cow	
Total =	**$20.30**	**/cow**	

2. Other Operating Costs

2.01 Straw

1.00	tons/cow/year	
x $20.00	/ton	
= **$20.00**	**/cow**	

2.02 Veterinary Medicine & Supplies

Calf Medication

$0.48	/calf blackleg	
x 95.00	% calf crop	
= $0.46	/cow	

Cow Medication

$3.87	/cow IBR	
+ $3.45	/cow scourguard	
+ $4.71	/cow parasite control	
± $0.65	/cow ADE	
= $12.68	/cow	

Herd Health Program

$135.00	/hour charge	
x 6.00	hours	
÷ 150.00	cows	
= $5.40	/cow	

Mileage

$1.00	/km charge	
x 80.00	kilometres	
x 4.00	visits	
÷ 150.00	cows	
= $2.13	/cow	

Total	=	**$20.67**	**/cow**

2.03 Breeding Costs

Feed for Bulls

Hay

4.00	tons good quality	
x $50.00	/ton	
x 6.00	bulls	
÷ 150.00	cows	
= $8.00	/cow	

Barley		7.00	lbs barley/bull/day
	x	120.00	days
	÷	48.00	lbs/bu
	x	$2.00	/bushel
	x	6.00	bulls
	÷	150.00	cows
	=	$1.40	/cow
Total	=	$9.40	/cow

Straw for Bulls

	1.00	tons/bull/year
x	$20.00	/ton
x	6.00	bulls
÷	150.00	cows
=	$0.80	/cow

Vet & Medicine for Bulls

	$55.00	semen test
+	$10.00	total vet cost/bull
x	6.00	bulls
÷	150.00	cows
=	$2.60	/cow

Replacement of Bulls

	$2,200	bull cost
-	$600	bull salvage value
x	25.00	% replacement rate
x	6.00	bulls
÷	150.00	cows
=	$16.00	/cow

Investment in Bulls

	$2,200	bull cost
+	$600	bull salvage value
÷	2.00	average
x	3.50	% investment rate
x	6.00	bulls
÷	150.00	cows
=	$1.96	/cow

Pasture Costs for Bulls

	$60.86	/bull pasture cost	
x	6.00	bulls	
÷	150.00	cows	
=	$2.43	/cow	
Total =	**$33.19**	**/cow**	

2.04 Fuel, Oil, Repairs & Maintenance

Machinery

	$1,750	annual fuel cost	
+	$1,300	oil, repairs & maintenance	
÷	150.00	cows	
=	$20.33	/cow	

Buildings,Fences etc.

	$1,000	repairs & maintenance	
÷	150.00	cows	
=	$6.67	/cow	
Total =	**$27.00**	**/cow**	

2.05 Utilities

	$1,500	annual cost	
÷	150.00	cows	
=	**$10.00**	**/cow**	

2.06 Marketing & Transportation

Trucking

Calves

	142.50	calves	
x	575.00	lbs/calf	
x	$1.50	/cwt (trucking cost)	
÷	150.00	cows	
=	$8.19	/cow	

Cull Cows

	15.00	cull cows	
-	2.00	cows died	
x	1,350.00	lbs/cow	
x	$1.50	/cwt (trucking cost)	
÷	100.00	lbs/cwt	
÷	150.00	cows	
=	$1.76	/cow	

Selling Commission				
Calves		142.50	calves	
	x	$15.75	/calf	
	÷	150.00	cows	
	=	$14.96	/cow	
Cull Cows		15.00	cull cows	
	-	2.00	cows died	
	x	$18.25	/cow	
	÷	150.00	cows	
	=	$1.58	/cow	
Total	**=**	**$26.49**	**/cow**	
2.07 Death Loss				
	x	$900	/cow investment	
	x	1.25	% mortality rate	
	=	**$11.25**	**/cow**	
2.08 Manure Removal				
		$2,500	annual removal cost	
	÷	150.00	cows	
	=	**$16.67**	**/cow**	
2.09 Insurance				
		$900	$/cow investment	
	x	$0.50	/$100 capital	
	÷	100.00	/100	
	=	$4.50	/cow	
		$120,156	building and equipment investment	
	x	$0.50	/$100 capital	
	÷	100.00	/100	
	÷	150.00	cows	
	=	$4.01	/cow	
		$45.00	liability	
	÷	150.00	cows	
	=	$0.30	/cow	
Total	**=**	**$8.81**	**/cow**	

2.10 Herd Replacement

	$1,000	/replacement heifer	_____
-	$375	/cull cow	_____
x	10.00	% replacement rate	_____
=	**$62.50**	**/cow**	_____

2.11 Miscellaneous

	$1,000	total office expenses	_____
÷	150.00	cows	_____
=	**$6.67**	**/cow**	_____

2.12 Operating Interest

(Operating interest is charged on one half of the subtotal operating costs)

	$429.55	subtotal operating costs	_____
÷	2.00	average	_____
x	6.00	% operating interest	_____
=	**$12.89**	**/cow**	_____

Capital Costs

Buildings & Water System	
Windbreak Fence	$2,380
Feedlot Fence	$2,392
Calf Shelters	$6,144
Handling Facilities	$3,500
Calving Barn (30'x32')	$9,600
Waterers (3 @ $ 1000)	$3,000
Pasture watering system	$4,000
Pasture water source	$3,000
Gates	$840
Round Bale Feeders	$900
Well & Pressure System	$3,500
Hydro (6 poles @ $400)	$2,400
Storage Bins	$3,500
Total Building Cost	**$45,156**
Machinery & Equipment	
Miscellaneous Machinery	$5,000
Tractor & Loader ($100,000 @30%)	$30,000
Bale Shredder	$13,000
Stock Trailer	$12,000
Truck ($30,000 @ 50%)	$15,000
Total Machinery & Equipment Cost	**$75,000**
Total Bldg., Mach. & Equip.	**$120,156**
Total Breeding Herd Value	**$135,000**
Total Capital Investment	**$255,156**

B. Fixed Costs

3. Depreciation $\frac{\text{Original Cost - Salvage Value}}{\text{Useful Life}}$

3.01 Buildings & Water System (not including pasture water system)

	$38,156	original cost
-	0.00	salvage value
÷	20.00	years useful life
÷	150.00	cows
=	**$12.72**	**/cow**

3.02 Machinery & Equipment

$75,000	original cost	_____
- $15,000	salvage value	_____
÷ 10.00	years useful life	_____
÷ 150.00	cows	_____
= **$40.00**	**/cow**	_____

4. Investment

$$\frac{\text{Original Cost + Salvage Value}}{2} \times \text{Investment Rate}$$

4.01 Buildings

$38,156	original cost	_____
+ $0.00	salvage value	_____
÷ 2.00	average	_____
x 3.50	% investment rate	_____
÷ 150.00	cows	_____
= **$4.45**	**/cow**	_____

4.02 Machinery & Equipment

$75,000	original cost	_____
+ $15,000	salvage value	_____
÷ 2.00	average	_____
x 3.50	% investment rate	_____
÷ 150.00	cows	_____
= **$10.50**	**/cow**	_____

4.03 Livestock

$900	/cow	_____
x 3.50	% investment rate	_____
= **$31.50**	**/cow**	_____

4.04 Pasture

A. Marginal Land
Investment

Land 7.00	acres/cow	_____
x $200.00	/acre	_____
x 3.50	% investment rate	_____
= $49.00	/cow	_____

Fence			
	$18,900	total fence investment	
+	$0	salvage value	
÷	2.00	average	
x	3.50	% investment rate	
÷	150.00	cows	
=	$2.21	/cow	
Pasture Water System			
	$7,000	system & source	
+	$0	salvage value	
÷	2.00	average	
x	3.50	% investment rate	
÷	150.00	cows	
=	$0.82	/cow	
Total Investmen =	$52.02	/cow	
Depreciation			
Fence	$18,900	total fence investment	
-	$0	salvage value	
÷	20.00	years useful life	
÷	150.00	cows	
=	$6.30	/cow	
Pasture Water system			
	$7,000	system & dugout	
-	$0	salvage value	
÷	20.00	years useful life	
÷	150.00	cows	
=	$2.33	/cow	
Total =	$8.63	/cow	
Taxes	7.00	acres/cow	
x	$2.00	/acre	
=	$14.00	/cow	
Total =	**$74.66**	**/cow**	
B. Crop Land Investment			
Land	3.00	acres/cow	
x	$425	/acre	
x	3.50	% investment rate	
=	$44.63	/cow	

Fence				
		$8,640	total fence investment	
	+	$0	salvage value	
	÷	2.00	average	
	x	3.50	% investment rate	
	÷	150.00	cows	
	=	$1.01	/cow	
Pasture Water System				
		$7,000	system & source	
	+	$0	salvage value	
	÷	2.00	average	
	x	3.50	% investment rate	
	÷	150.00	cows	
	=	$0.82	/cow	
Total Investmen	=	$46.45	/cow	
Depreciation				
Fence		$8,640	total fence investment	
	-	$0	salvage value	
	÷	20.00	years useful life	
	÷	150.00	cows	
	=	$2.88	/cow	
Pasture Water system				
		$7,000	system & source	
	-	$0	salvage value	
	÷	20.00	years useful life	
	÷	150.00	cows	
	=	$2.33	/cow	
Total	=	$5.21	/cow	
Taxes				
		3.00	acres/cow	
	x	$5.50	/acre	
	=	$16.50	/cow	
Total	=	**$68.00**	**/cow**	

C. Crown Land:

Depreciation

Fence		9.38	miles of fence
	x	$1,920	/mile
	=	$18,000	fence cost
	-	$1,800	salvage value
	÷	20.00	years useful life
	÷	150.00	cows
	=	$5.40	/cow
Pasture Water system			
		$7,000	system & source
	-	$0	salvage value
	÷	20.00	years useful life
	÷	150.00	cows
	=	$2.33	/cow
Total Depreciation	=	$7.73	/cow

Investment

Fence		$18,000	fence cost
	+	$1,800	salvage value
	=	$19,800	total invested
	÷	2.00	average
	x	3.50	% investment rate
	÷	150.00	cows
	=	$2.31	/cow
Pasture Water System			
		$7,000	system & source
	+	$0	salvage value
	÷	2.00	average
	x	3.50	% investment rate
	÷	150.00	cows
	=	$0.82	/cow
Total Investmen	=	$3.13	/cow

Land Rental (includes taxes)

		$246	/quarter, rental rate
	÷	12.00	cows/quarter
	=	$20.50	/cow
Total	**=**	**$31.36**	**/cow**

D. P.F.R.A.: Community Pasture Grazing

Cows

	$0.36	cost/cow/day	
x	140.00	days	
=	$50.40	/cow	

Calves

x	$20.00	/calf/season	
x	142.50	calves on pasture	
÷	150.00	cows on pasture	
=	$19.00	/cow	
Total	**$69.40**	**/cow**	

Average (A,B,C,D) = **$60.86** **/cow**

C. Labour

	9.00	hours/cow/year	
x	$10.00	/hour	
=	**$90.00**	**/cow**	

For further information contact your local MAFRI office.

Prepared by:

Peter Blawat
Policy Analyst

Michael Buchen
Business Development Specialist
Finished Beef

Bob Gwyer
Business Development Specialist

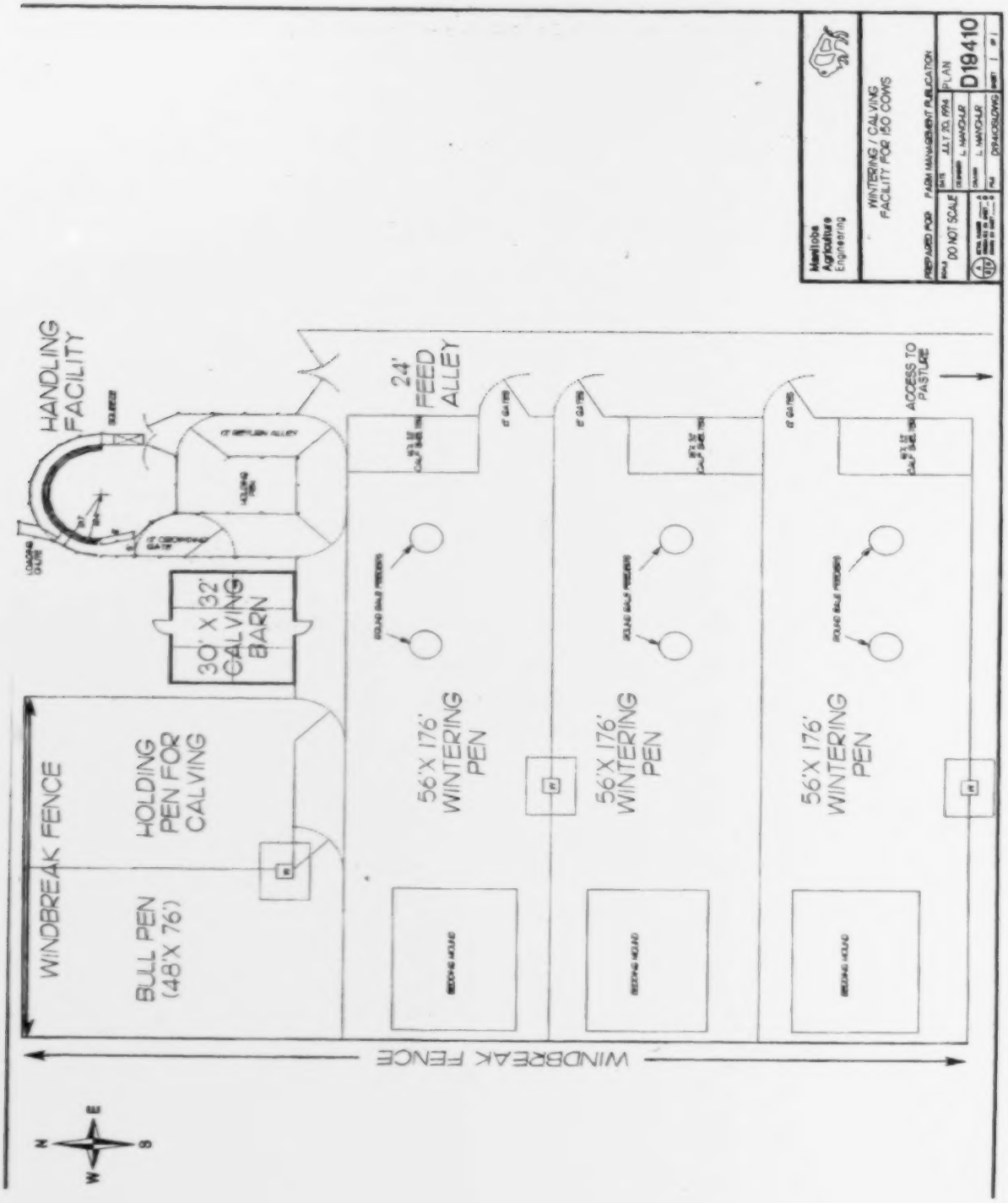
Lawrence Manchur
Engineer - Structures

Ian McCartney
Business Development Specialist

John Popp
Farm Production Extension Specialist
Beef

Keith Kyle
Business Development Specialist

Cow-Calf Operating Facilities



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